PRE-CERCLA SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLA screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets for the narrative.

Checklist Preparer:

Timothy J. Grape, P.G./Hydrogeologist, Project Manager	12/29/2014
(Name / Title)	(Date)
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(Agency)	(Phone)
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(Email Address)	

Site Name: Alexandria Municipal Well Contamination, SA247

Other Names (if any): Petroleum Leak Site 114, Petroleum Leak Site 17238

Site Location: Broadway Street and 3rd Avenue West
(Street)

Alexandria	Douglas	MN	56308-1417
(City)	(County)	(State)	(Zip+4)

Congressional District 7

Latitude: 45.889460° N **Longitude:** -95.377613° W

Geospatial Data MPCA October 2014

Accuracy (+/-m)	+/- 30m	**Collection Method:**	Map interpolation Google Earth	**Ref. Datum:**	NAD83
Ref. Point:	Center of intersection at Broadway St. & 3rd Avenue West	**Source Map Scale:**		**Point/Line/ Area:**	Point
Collection Date:	10/31/2014	**Verification Method:**	N/A		

Complete the following checklist.	**YES**	**NO**
1. Does the site already appear in SEMS?	☐	■
2. Is there an actual release or potential to release?	■	☐
3. Is there documentation indicating that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?	■	☐
4. Are there potential targets on-site or within one mile of the site?	■	☐
5. Is there sufficient documentation that clearly demonstrates that there is no potential for the release to cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data	☐	■

	showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)?		
6.	Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	■	☐
7.	Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	☐	■
8.	Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	☐	■
9.	Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	☐	■
10.	Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	■	☐
11.	Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	☐	■

Preparer's Recommendation: ■ Enter the site into SEMS. Further assessment is recommended.
☐ The site is not recommended for placement into SEMS.

Please explain recommendation below:

DECISION/DISCUSSION/RATIONALE:

2. Petroleum hydrocarbons & chlorinated solvents have been detected in municipal water supply wells.
3. Municipal supply wells are impacted with volatile organic compounds (VOCs) including petroleum and chlorinated VOCs (CVOCs).
4. The Site is located in a mixed commercial/residential area. Potential for vapor intrusion, soil exposure, and ground water exposure/drinking water exposure due to municipal water supply wells.
6. MPCA petroleum remediation program (PRP)and Site Assessment
10. Petroleum exclusion – a mix of petroleum and non-petroleum compounds have been identified in the municipal supply wells.

General Discussion

This site involves contamination of municipal supply wells with trichloroethylene (TCE) above the cancer risk benchmark of 1 µg/L. Contaminant distribution and concentrations justify further investigation and potentially contaminant mitigation.

City of Alexandria municipal supply wells 4, 6 and 7A were contaminated with petroleum and non-petroleum (chlorinated volatile organic compounds) contamination. The south well field was abandoned in June of 1998 including wells 4 -& 6. MPCA Petroleum Remediation Program (PRP) has been sampling the city municipal wells since 2008 under PRP Leak sites 114 and 17238. Municipal well locations are illustrated on the attached Figure 1 and a summary table of the laboratory analytical results is attached as Table 1B.

On-going petroleum work includes continuing sampling of the municipal supply wells and an aquifer study designed to determine the relationship between ground water at Leak site 17238 and ground water at municipal well 7A.

Compounds detected in existing municipal supply well 7A consisted of TCE, *cis*-1,2-dichloroethene (DCE), 1,2-dichloroethane (DCA), and 1,4-dichlorobenzene. The concentrations of these compounds are currently below

EPA Maximum Contaminant Levels (MCLs) and current Minnesota Department of Health (MDH) Health Risk Limits (HRLs). However, the TCE concentrations observed in municipal well 7A are above the interim MDH guidance for TCE (Health Based Value or HBV). TCE concentrations detected in municipal supply well 7A have ranged from 1.1 µg/L to 5.1 µg/L. *Cis*-1,2-DCE concentrations detected in municipal supply well 7A have ranged from 0.6 µg/L to 1.9 µg/L. TCE was also detected in municipal supply well 8A in the March 2014 (0.77 µg/L), June 2014 (0.94 µg/L) and August 2014 (0.67 µg/L) sampling events. Analytical results from municipal supply wells are summarized on Table 1B attached.

Preparer's Signature: Timothy J. Grape, P.G. — Print Name/Signature — 3/26/2015 — Date

EPA Regional Review and Site Assessment Decision

X **Incident for further action under CERCLA**
☐ **Not a valid site or incident**

Defer/Refer to:
☐ **Removal Program**
☐ **State/Tribal Program**
☐ **RCRA**
☐ **Brownfields**
☐ **Other:** _____

Regional EPA Reviewer: David Brauner — Print Name/Signature — 4/7/15 — Date

References:

WCEC, 2012, Alexandria Well Field Contamination Investigation Summary Report – FY 2011-2012, MPCA Site ID No.: Leak0000114, WCEC Project No.: 06-5494-30, dated June 29, 2012, prepared by West Central Environmental Consultants (WCEC), Maple Grove, Minnesota, pp. 427.

Attachments:

Maps
Figure 1 – Well Location Diagram
Figure 2 - Site Location Map

Tables
Table 1B - Laboratory Analytical Results

Figure 1: Municipal Supply Wells: Location Map

Well name	Unique ID	Current status	Screen Interval (ft bgs)	1,2-DCA (ug/L) detected?	Other VOC's detected?
30 Driven Wells	-	abandoned	-	Not Sampled	Not Sampled
2 Bored Wells	-	abandoned	-	Not Sampled	Not Sampled
Dug Well	-	abandoned	-	Not Sampled	Not Sampled
Old Well	-	abandoned	-	Not Sampled	Not Sampled
Drilled Well	-	abandoned	-	Not Sampled	Not Sampled
New Well	-	abandoned	-	Not Sampled	Not Sampled
Well No. 1	-	abandoned	-	Not Sampled	Not Sampled
Well No. 2	-	abandoned	-	Not Sampled	Not Sampled
Well No. 3	214752	abandoned	78 - 105	Not Sampled	Not Sampled
Well No. 4	214753	abandoned	30	Yes	Yes
Well No. 5	-	abandoned	-	Unknown	Unknown
Well No. 6	-	abandoned	-	Yes	Yes
Well No. 6A	214754	abandoned	80 - 105	Unknown	Unknown
Well No. 7	214755	abandoned	90 - 130	Unknown	Unknown
Well No. 7A	214756	active	96 - 129	Yes	Yes
Well No. 8	214757	abandoned	96 - 126	Unknown	Unknown
Well No. 8A	214758	active	99 - 119	No	No
Well No. 9	214759	active	96 - 118	No	No
Well No. 10	241356	abandoned	104 - 129	No	No
Well No. 11	241357	abandoned	87 - 107	Yes	No
Well No. 12	475655	abandoned	90 - 125	No	Yes
Well No. 13	635452	active	106 - 126	No	No
Well No. 14	680655	active	92 - 127	No	No
Well No. 15	685764	active	92 - 132	No	No
Well No. 16	749302	active	85 - 120	No	No
Well No. 17	762288	active	99.5 -134.5	No	No
Ballpark Well	601366	active	92 - 107	No	No

Highlighted Area - Indicates information is updated from the Phase I Report dated 4/24/07

See Table 1A and 1B for Municipal Well Details.

Legend

Municipal Wells History - Table 1A

- Early Wells - Abandoned
- Southern Well Field - Abandoned
- Northern Well Field - Abandoned
- Northern Well Field - Active
- Ballpark Well
- Expanded Investigation Area
- DWSMA

Alexandria Well Field Contamination Project
MPCA Site ID #: LEAK0000114
WCEC Project No.: 06-5494-30

N

Map Date: February 2009

0 200 400 800 1,200 1,600 Feet

Minnesota Pollution Control Agency

Figure 2: Site Location Diagram

Alexandria Well Contamination Site
MPCA Site Assessment Site SA247
Broadway Street and 3rd Avenue West, Alexandria, Minnesota

Table 1B: Municipal Supply Wells: Pre-Treat VOC Sampling Results, Alexandria Well Field Contamination Project, MPCA Leak Site 114

Well Name	Unique Well ID	Status	Sample Date	1,2-DCA (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Xylenes (µg/L)	Chloroethane (µg/L)	Chloro methane (µg/L)	MEK (µg/L)	MTBE (µg/L)	Isopropylbenzene/ Cumene (µg/L)	n-propylbenzene (µg/L)	Styrene (µg/L)	Tetrachloroethene/ Tetrachloroethylene (ug/L)	1,2,4-trimethylbenzene (µg/L)	Cis-1,2-Dichloroethylene	1,4 Dichlorobenzene	Trans-1,2 Dichloroethylene	Trichloroethene/ Trichloroethylene (µg/L)	Acetone	Bromodichloromethane	Chloroform	Dibromochloromethane	GRO	Data Source
Alexandria Municipal Well #1	NA	Sealed	No known analytical sampling data available.																								
Alexandria Municipal Well #2	NA	Sealed	No known analytical sampling data available.																								
Alexandria Municipal Well #3	214752	Sealed	No known analytical sampling data available.																								
Alexandria Municipal Well #4	214753	Sealed	1984		**14**																						Wellhead Protection Plan, Part II (2003)
			06/07/84	**2.1**	**9.4**											<0.1					<0.1						Original Laboratory Report in MPCA Leak File #114 [1]
			07/13/84	<0.1	<1.0											<0.1					<0.1						Original Laboratory Report in MPCA Leak File #114 [1]
			08/14/84	**1.6**	**4.4**											<0.1					**0.6**						Original Laboratory Report in MPCA Leak File #114 [1]
			11/28/84	**1.7**	**14**											**0.7**					**0.4**						Original Laboratory Report in MPCA Leak File #114 [1]
			05/01/85	**2.5**	<1.0											**0.1**					**0.7**						Original Laboratory Report in MPCA Leak File #114 [1]
			05/14/85	**1.1**	<1.0											<0.1					**0.4**						Original Laboratory Report in MPCA Leak File #114 [1]
			06/18/85	**1.1**	**11**											<0.1					**0.5**						Original Laboratory Report in MPCA Leak File #114 [1]
			10/17/86	**0.98**	**8.3**	**5.2**	**20**	**28.5**			**12**		**2.6**			<2.0											Original MDH Laboratory Report in MPCA Leak File #114 [2]
			9/23/93		**3.8**	<1.0	**6.6**	**12**																			Groundwater Quality Summary Table in MPCA Leak File 3864 (5)
			6/18/96	**0.4**	**1.5**	<0.2	**2.6**	**1.5**			<10		**0.7**	**0.8**	<0.5	<0.2	**1.2**				**0.3**						Original MDH Laboratory Report in MPCA Leak File #114 [3]
Alexandria Municipal Well #5	NA	Sealed	No known analytical sampling data available.																								
Alexandria Municipal Well #6	NA	Sealed	No known analytical sampling data available.																								
Alexandria Municipal Well #6A	214754	Sealed	06/07/84	**0.2**	**2.4**											**1.4**					<0.1						Original Laboratory Report in MPCA Leak File #114 [1]
			07/13/84	**1.0**	**3.0**											**0.2**					<0.1						Original Laboratory Report in MPCA Leak File #114 [1]
			08/14/84	**0.2**	<1.0											**2.0**					**0.5**						Original Laboratory Report in MPCA Leak File #114 [1]
			11/28/84	**0.4**	**3.1**											**1.6**					**0.2**						Original Laboratory Report in MPCA Leak File #114 [1]
			05/01/85	<0.1	<1.0											**1.4**					**0.3**						Original Laboratory Report in MPCA Leak File #114 [1]
			05/14/85	<0.1	<1.0											**1.2**					**0.3**						Original Laboratory Report in MPCA Leak File #114 [1]
			09/23/93		**1.2**	<1.0	**4.3**	**3.3**																			Groundwater Quality Summary Table in MPCA Leak File 3864 (5)
Alexandria Municipal Well #7	214755	Sealed	No known analytical sampling data available.																								
Alexandria Municipal Well #7A	214756	Offline	05/15/84	**0.4**	<1.0											<0.1					<0.1						Original Laboratory Report in MPCA Leak File #114 [1]
			08/14/84	**0.3**	<1.0											<0.1					<0.1						Original Laboratory Report in MPCA Leak File #114 [1]
			11/28/84	**0.4**	<2.0											<0.1					<0.1						Original Laboratory Report in MPCA Leak File #114 [1]
			05/01/85	**0.6**	<1.0											**0.4**					<0.1						Original Laboratory Report in MPCA Leak File #114 [1]
			10/17/86	**0.6**	<0.5	<0.5	<0.5	<1.0			<5.0		<1.0			<2.0											Original Laboratory Report in MPCA Leak File #114 [2]
			06/18/96	**0.4**	<0.2	<0.2	<0.2	<0.4			<10		<0.5	<0.5	<0.5	<0.2	<0.5				<0.1						Original MDH Laboratory Report in MPCA Leak File #114 [3]
			09/05/01	**0.3**	<0.2	<0.2	<0.2	<0.4			<10		<0.5	<0.5	<0.5	<0.2	<0.5				<0.1						Original MDH Laboratory Report in MPCA Leak File #114 [4]
			06/03/02	<0.2	<0.2	<0.2	<0.2	<0.4			<10		<0.5	<0.5	<0.5	<0.2	<0.5				<0.1						Original MDH Laboratory Report received from ALP
			06/04/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/29/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	**1**	**1.2**	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			12/01/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	**1.1**	<1	<1	**1.9**	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	**0.5**	<0.5	<1	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	**1.1**	<10					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	**0.5**	**0.5**	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**0.9**	<0.3	<0.3	**1.6**	<5.2					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	<1	**1**	<0.5	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	**1.3**	<0.5	**0.5**	**2.4**	<5					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/04/10	**0.5**	**0.7**	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**1**	<0.3	<0.3	**1.9**	<5.2				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	**0.8**	**1.2**	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2**	<0.5	**0.6**	**4.8**	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
Dup (MU7d)			09/27/10	**0.8**	**1.4**	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.9**	<0.5	**0.6**	**5.1**	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	**0.6**	**0.6**	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.9**	<0.5	<0.5	**1.8**	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
Dup (MU7d)			12/16/10	<0.5	**0.6**	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.8**	<0.5	<0.5	**1.6**	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/29/11	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.8n**	<0.5	<0.5	**2.2**	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
Dup (MU7d)			03/29/11	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.7n**	<0.5	<0.5	**2.2**	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	**0.6**	<0.5	<0.5	**1.3**	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
Dup (MU7d)			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	**1.4**	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	**1.5**	<25					
Dup (MU7d)			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	**1.5**	<25					
			12/15/11	**0.55**	**0.5**	<0.39	<0.38	<1.1	<0.32	**0.98**	<2	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	**0.63**	<0.34	<0.21	**1.8**	<12.5	<0.23	<0.34	<0.36		
Dup (MU7d)			12/15/11	**0.41**	**0.47**	<0.39	<0.38	<1.1	<0.32	<0.36	<2	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	**0.83**	<0.34	**0.22**	**2.2**	<12.5	<0.23	<0.34	<0.36		

Table 1B: Municipal Supply Wells: Pre-Treat VOC Sampling Results, Alexandria Well Field Contamination Project, MPCA Leak Site 114

Well Name	Unique Well ID	Status	Sample Date	1,2-DCA (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Xylenes (µg/L)	Chloroethane (µg/L)	Chloro methane (µg/L)	MEK (µg/L)	MTBE (µg/L)	Isopropylbenzene/ Cumene (µg/L)	n-propylbenzene (µg/L)	Styrene (µg/L)	Tetrachloroethene/ Tetrachloroethylene (ug/L)	1,2,4-trimethylbenzene (µg/L)	Cis-1,2-Dichloroethylene	1,4 Dichlorobenzene	Trans-1,2 Dichloroethylene	Trichloroethene/ Trichloroethylene (µg/L)	Acetone	Bromodichloromethane	Chloroform	Dibromochloromethane	GRO	Data Source
Alexandria Municipal Well #8	214757	Sealed	No known analytical sampling data available.																								
Alexandria Municipal Well #8A	214758	Active	09/05/01	<0.2	<0.2	<0.2	<0.2	<0.4			<10		<0.5	<0.5	<0.5	<0.2	<0.5				<0.1						Original MDH Laboratory Report in MPCA Leak File #114 [4]
			06/04/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/29/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			12/01/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	<0.5	<0.5	<1	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<10					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<5.2					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	<1	<0.5	<0.5	<1	<2	<0.5	<0.5	<5	**0.6**	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<5					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/04/10	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<3.4	**0.3**	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	<0.3	**8.9**				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	Well down for repair, unable to collect sample.																							
			03/29/11	Well down for repair, unable to collect sample.																							
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	<1	<25					
			12/15/11	<0.23	<0.36	<0.39	<0.38	<1.1	<0.32	**1**	<2.0	**0.46**	<0.36	<0.42	<0.35	<0.26	<0.26	<0.37	<0.34	<0.18	<0.2	<12.5	<0.23	<0.34	<0.36		
			03/28/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
			06/08/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<4		
Alexandria Municipal Well #9	214759	Active	09/05/01	<0.2	<0.2	<0.2	<0.2	<0.4			<10		<0.5	<0.5	<0.5	<0.2	<0.5				<0.1						Original MDH Laboratory Report in MPCA Leak File #114 [4]
			06/04/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/29/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			12/01/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	<0.5	<0.5	<1	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<10					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<5.2					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	Well down for repair, unable to collect sample.																							Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/04/10	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**10**				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/29/11	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	<1	<25					
			12/15/11	<0.23	<0.36	<0.39	<0.38	<1.1	<0.32	<0.36	<2.0	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	<0.37	<0.34	<0.21	<0.2	<12.5	<0.23	<0.34	<0.36		
			03/28/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
			06/08/12	<1	<1	<1	<1	<3	<1	<1	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
Alexandria Municipal Well #10	241356	Sealed	09/05/01	<0.2	<0.2	<0.2	<0.2	<0.4			<10		<0.5	<0.5	<0.5	<0.2	<0.5				<0.1						Original MDH Laboratory Report in MPCA Leak File #114 [4]
			06/03/02	<0.2	<0.2	<0.2	<0.2	<0.4			<10		<0.5	<0.5	<0.5	<0.2	<0.5				<0.1						Original MDH Laboratory Report received from ALP
Alexandria Municipal Well #11	241357	Sealed	06/03/02	0.3	<0.2	<0.2	<0.2	<0.4			<10		<0.5	<0.5	<0.5	<0.2	<0.5				<0.1						Original MDH Laboratory Report received from ALP
Alexandria Municipal Well #12	475655	Sealed	09/10/02	<0.2	<0.2	1.2	0.2	<0.4			<10		<0.5	<0.5	0.6	<0.2	<0.5				<0.1						Original MDH Laboratory Report received from ALP
Alexandria Municipal Well #13	635452	Active	06/04/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/29/08	Not sampled during this event due to pump failure.																							Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			12/01/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	Not sampled due to repair made that removed the sampling port.																							Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	Not sampled due to repair made that removed the sampling port.																							Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	<1	<0.5	<0.5	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<5					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/04/10	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**5.7**				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	<1.0	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/29/11	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	<1	<25					
			12/15/11	<0.23	<0.36	<0.39	<0.38	<1.1	<0.32	<0.36	<2.0	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	<0.37	<0.34	<0.21	<0.2	<12.5	<0.23	<0.34	<0.36		
			03/28/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
			06/08/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		

Table 1B: Municipal Supply Wells: Pre-Treat VOC Sampling Results, Alexandria Well Field Contamination Project, MPCA Leak Site 114

Well Name	Unique Well ID	Status	Sample Date	1,2-DCA (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Xylenes (µg/L)	Chloroethane (µg/L)	Chloro methane (µg/L)	MEK (µg/L)	MTBE (µg/L)	Isopropylbenzene/ Cumene (µg/L)	n-propylbenzene (µg/L)	Styrene (µg/L)	Tetrachloroethene/ Tetrachloroethylene (ug/L)	1,2,4-trimethylbenzene (µg/L)	Cis-1,2-Dichloroethylene	1,4 Dichlorobenzene	Trans-1,2 Dichloroethylene	Trichloroethene/ Trichloroethylene (µg/L)	Acetone	Bromodichloromethane	Chloroform	Dibromochloromethane	GRO	Data Source
Alexandria Municipal Well #14	680655	Active	06/04/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/29/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			12/01/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	<0.5	<0.5	<1	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<10					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<5.2					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	<1	<0.5	<0.5	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<5					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/04/10	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**7.4**				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	Well down for repair, unable to collect sample.																							Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	<1.0	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/29/11	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	<1	<25					
			12/15/11	<0.23	<0.36	<0.39	<0.38	<1.1	<0.32	**3.2**	<2	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	<0.37	0.34	<0.21	<0.2	<12.5	<0.23	<0.34	<0.36		
			03/28/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
			06/08/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
Alexandria Municipal Well #15	685764	Active	06/04/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/29/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			12/01/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	<0.5	<0.5	<1	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<10					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<5.2					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	<1	<0.5	<0.5	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<5					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/04/10	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<0.3	<0..3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**7.5**				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/29/11	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	<1	<25					
			12/15/11	<0.23	<0.36	<0.39	<0.38	<1.1	<0.32	<0.36	<2	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	<0.37	<0.34	<0.21	<0.2	<12.5	<0.23	<0.34	<0.36		
			03/28/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
			06/08/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
Alexandria Municipal Well #16	749302	Active	06/04/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
(New well in place of MU #11)			09/29/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			12/01/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	<0.5	<0.5	<1	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<10					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<5.2					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	<1	<0.5	<0.5	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<5					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/04/10	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**8.7**				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/29/11	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	<1	<25					
			12/15/11	<0.23	<0.36	<0.39	<0.38	<1.1	<0.32	<0.36	<2	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	<0.37	<0.34	<0.21	<0.2	<12.5	<0.23	<0.34	<0.36		
			03/28/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
			06/08/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		

Table 1B: Municipal Supply Wells: Pre-Treat VOC Sampling Results, Alexandria Well Field Contamination Project, MPCA Leak Site 114

Well Name	Unique Well ID	Status	Sample Date	1,2-DCA (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Xylenes (µg/L)	Chloroethane (µg/L)	Chloro methane (µg/L)	MEK (µg/L)	MTBE (µg/L)	Isopropylbenzene/ Cumene (µg/L)	n-propylbenzene (µg/L)	Styrene (µg/L)	Tetrachloroethene/ Tetrachloroethylene (ug/L)	1,2,4-trimethylbenzene (µg/L)	Cis-1,2-Dichloroethylene	1,4 Dichlorobenzene	Trans-1,2 Dichloroethylene	Trichloroethene/ Trichloroethylene (µg/L)	Acetone	Bromodichloromethane	Chloroform	Dibromochloromethane	GRO	Data Source
Alexandria Municipal Well #17	762288	Active	06/04/08	Well being constructed during sampling date.																		<10					
(New well in place of MU #12)			09/29/08	Still being developed, should be active for the December 08 sampling event.																		<10					
			12/01/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	<0.5	<0.5	<1	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<10					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<5.2					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	<1	<0.5	<0.5	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<5					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/04/10	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**12**				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/29/11	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	<1	<25					
			12/15/11	<0.23	<0.36	<0.39	<0.38	<1.1	<0.32	**2.1**	<2	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	<0.37	<0.34	<0.21	<0.2	<12.5	<0.23	<0.34	<0.36		
			03/28/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
			06/08/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
Ballpark Well	601366	Active	06/04/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
School)			09/29/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			12/01/08	Well winterized, unable to collect sample.																							Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	<0.5	<0.5	<1	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<10					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	Well winterized, unable to collect sample.																							Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	Well winterized, unable to collect sample.																							Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/07/10	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**7.8**				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	Well winterized, unable to collect sample.																							
			03/29/11	Well winterized, unable to collect sample.																							
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	<1	<25					
			12/15/11	Well winterized, unable to collect sample.																							
			06/08/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
Finished Water *			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/30/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<4	<1	<25	**4.6**	**1.5**	**7.3**		
			12/15/11	<0.23	<0.36	<0.39	<0.38	<1.1	<0.32	<0.36	<2	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	<0.37	<0.34	<0.21	<0.2	<12.5	**1.1**	**0.54**	**1.5**		
			03/28/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
			06/08/12	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<1	<1	<1		
Trip Blank			06/04/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/29/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	<1	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			12/01/08	<1	<1	<1	<1	<1	<1	<1	<5	<2	<1.0	<1	<1	<1.0	<1	<1	**2.3**	<1	<1	<10					Sampling analysis performed during Phase 2 (see attached MVTL Laboratory Report
			09/30/09	<0.5	<0.5	<1	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<10					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/21/09	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<3.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**1**	<0.3	<0.4	<5.2					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/31/10	<1	<0.5	<0.5	<1	<2	<0.5	<0.5	<5	<0.5	<1	<1	<1	<0.5	<1	<0.5	**0.74**	<0.5	<0.5	<5					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/04/10	<0.3	<0.3	<0.3	<0.3	<0.8	<0.3	<0.3	<1.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**0.4**	<0.3	<0.4	<5.2				<40	Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/27/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			12/16/10	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	**0.9**	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			03/29/11	<0.5	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			06/16/11	<0.5	<0.5	<1	<1	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<20					Sampling analysis performed during Phase 3 (see attached Laboratory Report)
			09/28/11	<1	<1	<1	<1	<3	<1	<4	<4	<1	<1	<1	<1	<1	<1	<1	**1.2**	<4	<1	<25	<1	<1	<1		
			12/15/11	<0.23	<0.36	<0.39	<0.38	<1.1	<0.32	<0.36	<2	<0.24	<0.36	<0.42	<0.35	<0.26	<0.26	<0.37	**0.79**	<0.21	<0.2	<12.5	<0.22	<0.34	<0.36		
HRL/HBV/RAA (ppb)[G]				**1**	**2**	**200**	**50**	**300**	**NE**	**NE**	**4000**	**NE**	**300**	**NE**	**NE**	**5**	**100**	**50**	**10**	**600**	**5**	**4000**	**6**	**30**	**10**		

Table 1B: Municipal Supply Wells: Pre-Treat VOC Sampling Results, Alexandria Well Field Contamination Project, MPCA Leak Site 114

Well Name	Unique Well ID	Status	Sample Date	1,2-DCA (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Xylenes (µg/L)	Chloroethane (µg/L)	Chloro methane (µg/L)	MEK (µg/L)	MTBE (µg/L)	Isopropylbenzene/ Cumene (µg/L)	n-propylbenzene (µg/L)	Styrene (µg/L)	Tetrachloroethene/ Tetrachloroethylene (ug/L)	1,2,4-trimethylbenzene (µg/L)	Cis-1,2-Dichloroethylene	1,4 Dichlorobenzene	Trans-1,2 Dichloroethylene	Trichloroethene/ Trichloroethylene (µg/L)	Acetone	Bromodichloromethane	Chloroform	Dibromochloromethane	GRO	Data Source

Notes:

Results are reported in µg/L or ppb (parts per billion)

All groundwater samples were analyzed for VOCs by EPA method 8260. From 9/30/09 to 6/4/10, method detection limits (MDLs) were requested in an effort to monitor contaminant trends below the previous reporting limit (RL) of 1 ppb. Sometime prior to the 3/31/09 event, several of NTS's normal reporting limits (RLs) were revised to 0.5 ppb, including Benzene, 1,2-DCA, and several other contaminants of interest with respect to this investigation so the request for MDLs was not needed in these

Blank spaces indicate laboratory analysis did not include designated contaminant (see lab report in Appendix A - under separate binding)

Municipal Well construction, location, and geologic information is available in Table 1A

Table updated June 2011 to include updated sampling of existing municipal wells and Ballpark Well (a test/irrigation well within the new proposed future well field)

[G] = Values listed are from the Minnesota Department of Health's (MDH's) Groundwater Values Table and may be based on a single exposure duration (Acute, Short Term, Subchronic, or Chronic) or a range of exposure durations.

ALP = Alexandria Light & Power

MNDWIS Database results for **treated** water from treatment plant 1 (**TP1)** identified DCA & benzene (1995 &1996), TCE (1993-1996), tetrachloroethane (1993, 1994, & 1996), xylenes (1994 & 1995), toluene (1995).

MNDWIS Database results for **treated** water from treatment plant 2 (**TP2**); all VOC results BDL 1993, 1994, 1995, 1996 other than four disifection by-products (see below) as stated by Rich Soule, MDH.

MNDWIS Database results for **treated** water from treatment plant 3 (**TP3**); all VOC results BDL 1998, 2000, 2003, 2007, 2010 other than four disifection by-products (see below) as stated by Rich Soule, MDH.

Four disinfection byproducts identified included: Bromodichloromethane, Bromoform, Chlorodibromomethane, & Chloroform.

(1) Serco Laboratory Reports; samples collected during Alexandria Street Department Investigation (Leak #5382) based on hand written note. Effluent (treated) water samples collected in conjunction with raw (untreated) samples; in many cases effluent samples contained higher contaminant concentrations, especially for TCE and tetrachlororethylene.

(2) MDH Laboratory Report with hand written well numbers; assumed to be pre-treat. Laboratory report is atteached to MDH Report on Investigation of Public Water Supply. The well number of one sample in report is unknown (had hand written note "Well #?"); unknown well sample contained TCE, ethylbenzene, and xylenes above reporting limit. Effluent (post treatment) sample contained DCA, TCE, benzene, ethylbenzene, and xylenes at lower concentrations.

(3) MDH Laboratory Report for MPCA Underground Storage Tanks Program; samples assumed to be pre-treat.

(4) MDH Laboratory Report; samples collected by MPCA.

(5) Groundwater Technologies dated 3/10/1994 for Leak # 3864 (Table Report). On 9/23/01993, 72 ppm/ppb? (units not listed) GRO was identified in City Public Well 4 (CPW-4). This was the only known GRO analysis, therefore, a new column was not added to the table.

n= Matrix Spike recovery not within control limits

* Municipal Finished Water was collected from the sampling port in the discharge pipe to the clear well (storage tank), just before the addition of the treatment chemicals.

NE The HRL has not been established for this compound

Blank spaces indicate Not Analyzed in the laboratory (See lab reports).

Notes:

[1] Serco Laboratory Reports; samples collected during Alexandria Street Department Investigation (Leak #5382) based on hand written note.
Effluent (treated) water samples collected in conjunction with raw (untreated) samples; in many cases effluent samples contained higher contaminant concentrations, especially for TCE and tetrachloroethylene.

[2] MDH Laboratory Report with hand written well numbers; assumed to be pre-treat. Laboratory report is attached to MDH Report on Investigation of Public Water Supply.
The well number of one sample in report is unknown (had hand written note "Well #?"); unknown well sample contained TCE, ethyl benzene, and xylenes above reporting limit.
Effluent (post treatment) sample contained DCA, TCE, benzene, ethyl benzene, xylenes at lower concentrations.

[3] MDH Laboratory Report for MPCA Underground Storage Tanks Program; samples assumed to be pre-treat.

[4] MDH Laboratory Report; samples collected by MPCA.

ALP = Alexandria Light & Power

*MNDWIS Database results for **treated** water from treatment plant 1 (**TP1)** identified DCA & benzene (1995 & 1996), TCE (1993-1996), tetrachloroehtane (1993, 1994, & 1996), xylenes (1994 & 1995), toluene (1995).*
*MNDWIS Database results for **treated** water from treatment plant 2 (**TP2**); all VOC results BDL 1993, 1994, 1995, 1996.*
*MNDWIS Database results for **treated** water from treatment plant 2 (**TP3**); all VOC results BDL 1998, 2000, 2003, 2007.*

***Bolded** values indicate contaminant levels above the HRL (Health Risk Limit)*
Additional Municipal Well information is available in Table 1A

Lab Analysis for 12/21/09 are estimated the reporting limit